

Direct Part Marking Resources: Qualification & Testing *Missing Statement* ~~Database~~

- To make available to all sectors of the IUID community, a common set of direct 2D marking reference data, including qualification/test reports and summary reports, that the DoD & Supplier base can use with little or no additional effort required.

And Best of All...It's Free

Web site:

<http://rfaacc.uab.edu/DRM>

Three Considerations for RAL

Marking

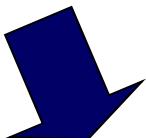
(Addressed in the Database)

- IUID marking methods (dot peen, laser/chemical etch, direct ink, label, engraving, coating).
- Material types & finishes (80% common to most of Industry - Aluminum, Titanium, Steel, Copper/nickel).
- Environmental criteria (80% common to most of Industry or use worst case - ultraviolet, heat, cold, lubricants, humidity).

IUID Database Development Process

DoD

UID Policy



UID Working Discussions

Joint Marking Qualification Working Group (JMQWG)



Neutral Broker



US Industry
UID Implementation



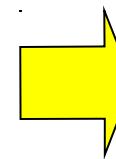
**2D Marking Methods,
Materials & Environments**

Information Repository:

<http://rsesc.uah.edu/DP>

M

**JMQWG Database
UA Huntsville
web site**



<http://rfal.uah.edu/>

IUID Materials Database

- Source data received from US Government and Industry.
- University of Alabama-Huntsville has compiled the available data in the database.
- User requests for additional data help fill database.
- University testing facilities available to interested parties.
- Database includes information on label

Web site:

<http://rsesc.uah.edu/DPM>

Snapshot of Main Database Page

LEBAR or ENTER to activate and use this control

Method

Source

	Laser	Laser Induced Surface Improvement (LISI)	Laser Engrave			Laser Etch	Laser Bond	Laser Coloring
			Laser Engrave	FO...	Laser Bond			
Aluminum	X	X	X	X		X	X	X
Steel	X	X	X	X		X	X	X
Metals	X					X		
Non-Metals		X		X		X	X	X
Painted						X		
Titanium		X		X		X	X	X
Copper		X		X		X	X	X
Nickel		X		X		X	X	X
Refrac Metals						X		
Magnesium							X	
Reactive and Refra...		X		X		X	X	X
Brass							X	



Snapshot of Search Page



Matrix **Search**

Marking Methods

- Laser
- Other
- Etch/Engraving
- Ink/Paint
- Labels
- Coatings
- Laser Engrave

Materials

- Aluminum
- Steel
- Metals
- Non-Metals
- Painted
- Titanium
- Copper
- Nickel
- Refrac Metals
- Magnesium
- Reactive and
- Brass
- Beryllium
- None

Objects

- Tag
- Helicopter
- Ammunition
- None

Your search produced 39 results.

Document ID	00000000021
Title	Fatigue Tests on 2024 A1
Actual Document	00000000021.pdf
Publication Date	14 August 2006
Keywords	None
Standards	None
Certifications	None
Summary	Fatigue Tests on 2024 A1, University of Tennessee Space Institute, 00/00/0000 00000000021.pdf
Organizations	University of Tennessee->University of Tennessee Space Institute->UTSI

Document ID 00000000051



Invitation to Exploit Our Data



- A significant amount of qualification & test data is already available in the database.
- We encourage organizations to share completed test data on 2D marking and material properties.
- Otherwise, organizations will have to perform all the testing they need themselves.
 - Gov't & Industry may end up performing duplicate testing → resulting in wasted schedule & test \$\$\$

Let's Share - This Is Not a Competitive Advantage Item

Summary

- Potential for large DoD/Industry cost avoidance if direct marking testing data is shared.
- Database utilization standardizes and consolidates DPM data in one place... free to IUID Community.

For more information, contact:

Associate Director Reliability
University of Alabama-Huntsville
<http://rfal.uah.edu/>
256-824-6147